AMENDMENTS TO THE CLAIMS:

Please amend the claims as follows:

Claims 1-9 (canceled)

10. (Previously Presented) A mutant of a parent filamentous fungus, the parent filamentous fungus having a preference for non-homologous recombination (NHR), wherein the ratio of NHR/HR is decreased in the mutant as compared to said ratio in said parent filamentous fungus measured under the same conditions and wherein the mutant is deficient in a gene encoding a component involved in NHR, and/or has a decreased level of a component involved in NHR.

Claim 11 (canceled)

12. (Currently Amended) The mutant according to claim 10, wherein the mutant is, optionally ~~preferably~~ inducibly, deficient in at least one of the following genes: *hdfA* or homologues thereof, *hdfB* or homologues thereof, or both, and/or has, optionally ~~preferably~~ inducibly, a decreased amount of at least one of the proteins encoded by these genes.

13. (Previously Presented) The mutant according to claim 10, wherein in the genome of the organism a gene involved in NHR has been replaced by a non-functional variant.

14. (Previously Presented) The mutant according to claim 10, wherein the mutant has an increased level of a component involved in HR.

15. (Previously Presented) The mutant according to claim 10, wherein the mutant is a recombinant mutant in which a gene is completely inactivated by recombination.

16. (Previously Presented) A filamentous fungus having a preference for non-homologous recombination (NHR), which has a ratio of NHR to homologous recombination (NHR/HR) less than 50.

17. (Previously Presented) The mutant according to claim 10, which is transformed with a DNA construct comprising a DNA sequence comprising a gene of interest encoding a polypeptide of interest.

18. (Previously Presented) The mutant according to claim 10, wherein the filamentous fungus is an *Aspergillus*, *Penicillium* or *Trichoderma* species.

19. (Previously Presented) The mutant according to claim 18, wherein the filamentous fungus is *Aspergillus niger* or an *Aspergillus oryzae*.

20. (Previously Presented) The mutant according to claim 18, wherein the filamentous fungus is *Penicillium chrysogenum* or *Penicillium citrinum*.

21. (Previously Presented) A method for producing a polypeptide of interest using the mutant according to claim 17, comprising:

(a) culturing the mutant under conditions conducive to expression of said DNA sequence encoding the polypeptide and

(b) recovering the polypeptide of interest.

22. (Withdrawn) A method for producing a metabolite using the mutant according to claim 15, comprising:

(a) culturing the mutant under conditions conducive to produce the metabolite and

(b) recovering the metabolite.

23. (Withdrawn) The method according to claim 22, wherein the metabolite is a carotenoid compound or a beta-lactam compound.

Claims 24-25 (canceled)

26. (Currently Amended) A mutant of a parent filamentous fungal cell, the parent filamentous fungal cell having a preference for non-homologous recombination (NHR) as compared to homologous recombination (HR), wherein the ratio of NHR/HR is decreased by at least 50% in the mutant as compared to said ratio in said parent filamentous fungal cell measured under the same conditions, wherein the mutant is, optionally inducibly, deficient in at least one component involved in NHR, and/or has a decreased amount of at least one of said at least one component,

and wherein said component is selected from the group consisting of filamentous fungal homologues of yeast KU80, KU70, RAD50, MRE11, XRS2, LIG4. SIR4, LIFL and NEILA mutant of a parent filamentous fungus with increased frequency of targeted integration of a polynucleotide to a predetermined genomic site, the parent filamentous fungus having a preference for non-homologous recombination (NHR), said mutant being obtainable by steering an integration pathway towards homologous recombination (HR), wherein the steering comprises providing a mutant which is deficient in a gene encoding a component involved in NHR, and/or has a decreased level of a component involved in NHR.

27. (Currently Amended) The mutant according to claim 26, wherein the component is steering comprises providing a mutant which is, preferably inducibly, deficient in at least one of the following genes: *hdfA* or a homologues thereof, *hdfB* or a

homologues thereof, or both, and/or has, preferably inducibly, a decreased amount of at least one of the proteins encoded by these genes.

28. (Currently Amended) The mutant according to claim 26, wherein the steering comprises providing a mutant in which a genecomponent involved in NHR has been replaced by a non-functional variant in the mutant.

29. (Currently Amended) The mutant according to claim 26, wherein the mutant has a ratio NHR/HR less than 10The mutant according to claim 26, wherein the steering comprises adding an excess of small double stranded polynucleotides to the polynucleotide to be integrated.

30. (Currently Amended) The mutant according to claim 26, wherein the mutant has a ratio NHR/HR less than 1The mutant according to claim 26, wherein the steering comprises decreasing the activity of at least one protein active in the NHR by adding an inhibitor of said protein(s).

31. (Previously Presented) The mutant according to claim 26, wherein the mutant has an increased level of a component involved in HR.

32. (Currently Amended) The mutant according to claim 26, wherein the mutant has a ratio NHR/HR less than 50, preferably less than 10, even more preferably less than 1, and most preferably less than 0.001.

33. (Previously Presented) The mutant according to claim 26, wherein the mutant is a recombinant mutant in which a gene is completely inactivated by recombination.

34. (Previously Presented) The mutant according to claim 26, which is transformed with a DNA construct comprising a DNA sequence comprising a gene of interest encoding a polypeptide of interest.

35. (Previously Presented) A method for producing a polypeptide of interest using the mutant according to claim 34, comprising:

(a) culturing the mutant under conditions conducive to expression of said DNA sequence encoding the polypeptide and

(b) recovering the polypeptide of interest.

36. (Previously Presented) The fungus according to claim 16, wherein the fungus has a ratio NHR/HR less than 10.

37. (Withdrawn) A method for producing a metabolite using the mutant according to claim 33, comprising:

(a) culturing the mutant under conditions conducive to produce the metabolite and

(b) recovering the metabolite.

38. (Withdrawn) The method according to claim 22, wherein the metabolite is a carotenoid compound or a beta-lactam compound.